



San Antonio Metropolitan Health District Fifth Edition

Health Alert: Important information to review and implement.

CITY OF SAN ANTONIO, BEXAR COUNTY AND SURROUNDING COMMUNITIES

Providing relief from the heat and an adequate supply of liquids (especially water) are the most critical interventions needed to assist persons in our community in surviving a heat wave. The 1998 prolonged heat spell and the outlook for more high temperatures, community leaders realized it was necessary to evaluate the local situation and share information. During numerous meetings, local leaders identified the need for a heat relief plan. A community meeting on August 5, 1998, lead by the Bexar County Judge, resulted in the development of the Community-Based Heat Relief Plan (The Plan). It explains how you can prevent, recognize, and cope with heat-related health problems, as well as provides a list of local agencies which will furnish heat-related assistance. The Plan is used as a basis for a more comprehensive "Extreme Weather Plan" and as supplements in conjunction with the County and City's emergency management plans.

The Plan was developed by representatives of the private and public sectors including the San Antonio Metropolitan Health District (SAMHD), Bexar County, the City of San Antonio, Greater Bexar County Community of Cities, Alamo Area Council of Governments (AACOG), United Way of San Antonio and Bexar County, Texas Department of Health -- Region 8, Christian Senior Services, Greater San Antonio Community of Churches, the American Red Cross, the Salvation Army, Voluntary Organizations Active in Disasters, Greater San Antonio Hospital Council, Bexar County Medical Society, University Health System, and the University of Texas Health Science Center at San Antonio. The Plan is published and distributed annually by the San Antonio Metropolitan Health District, (Metro Health). This is the Fifth Annual Edition.

The Plan was developed to be utilized as an effective tool for outreach workers, community members, and social service providers during future heat waves. We encourage you to share this Plan with anyone who might apply the information.

Users of this Plan are encouraged to direct questions to the appropriate agencies identified in it. Should issues not be addressed or questions remain unanswered please contact:

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INTRODUCTION

Heat is a potential killer. In the United States, hundreds of people die every year from heat-related illnesses. A severe heat wave hit the United States in the summer of 1980. Heat illnesses and injuries killed approximately 1,700 people that summer. Texas alone had 78 people die.

In the summer of 1998, the National Weather Service declared numerous communities in North and South Texas to be under an extreme heat advisory. Throughout Texas, high humidity coupled with temperatures in the high 90's and above caused significant elevations in the heat indices. In addition to the extremely hot and sultry afternoons, the ambient overnight temperatures rarely dropped below 80 degrees during the summer of 1998. These conditions produced extreme heat waves and pushed the heat index as far as the Extreme Danger Category, an index of 130 or greater. According to the Associated Press, 124 Texans died during the heat wave, three of which were from Bexar County. History has shown that these conditions are not uncommon for South Central Texas.

Summer heat waves bring unusually high temperatures that may last for days or weeks. Fortunately, the body has effective mechanisms to cool itself. Under some conditions, these mechanisms are not enough. In such cases, a person's body temperature rises rapidly. Very high body temperatures can cause severe damage to the brain and other vital organs.

Several factors affect the body's ability to cool itself during extremely hot weather. When humidity is high, perspiration does not evaporate as quickly, preventing adequate release of heat from the body. Other factors that affect the body's cooling mechanism include age, obesity, fever, dehydration, heart disease, poor circulation, sunburn, caffeine, drug and alcohol use. Those at highest risk for death or injury from heat are: the elderly, socially isolated individuals (homebound, homeless), the physically disabled, those with chronic medical conditions, infants, those taking certain medications and individuals that do not have access to air conditioning for at least a few hours of the day.

The San Antonio Metropolitan Health District (SAMHD) urges people to be especially mindful of summertime activity, whether playing or working. To prevent heat-related illness, activities must be balanced with measures that aid the body's cooling mechanisms. The very young and the very old are the most vulnerable. For discharge purposes, hospitals should be mindful of the heat conditions at patients' residences. Friends and neighbors of the elderly are urged to check with them frequently during this time. If no air conditioning is

available, as much ventilation as possible is recommended. During hot weather, fans should be utilized to increase maximum efficiency of air movement within people's homes. Individuals who are most at risk are advised to seek air conditioning if possible. Also, people should drink non-alcoholic and decaffeinated beverages as often as possible.

POLICY

It is the responsibility of Bexar County and the City of San Antonio to provide emergency management for the citizens in their jurisdiction. Emergency management plans have been developed, exercised, and put into action during numerous events, such as extreme weather conditions, flooding, hurricanes, hazardous material spills, and mass casualty events.

These plans all provide for evacuation efforts with accompanying utilization of shelters throughout the City of San Antonio and Bexar County. The opening and closing of these shelters is done through careful coordination with relief agencies, school districts and the Emergency Management Offices of the City of San Antonio and Bexar County.

It should be noted that many efforts are undertaken each year in this community to provide relief to people during extreme weather conditions. These efforts are usually conducted during cold weather conditions and during events that are not declared emergencies. Any future emergency relief plans must not interfere or impede with the close links that have already been established by the Emergency Management Offices with relief agencies such as the American Red Cross, Independent School Districts, and the Salvation Army.

POLICY IMPLEMENTATION

The Director of the San Antonio Metropolitan Health District, in conjunction with the Emergency Management Offices of the City of San Antonio and Bexar County, will activate the Community-Based Heat Relief Plan according to the levels described below.

Level I: Based upon the National Weather Service forecasts of temperatures greater than 100 degrees or when the heat index is expected to be within the 90-105 degree range for two successive days, the San Antonio Metropolitan Health District notifies the community of a Hot Weather Health Watch.

Level II: When the National Weather Service issues an Excessive Heat Advisory indicating the following criteria: Daytime heat index values of 105 degrees or higher and an actual nighttime ambient temperature of 80 degrees or higher for 48 hours (the 48-hour criterion applies only to the nighttime temperatures), the San Antonio Metropolitan Health District will issue a Hot Weather Health Warning.

Level III: When the National Weather Service issues an Excessive Heat Advisory that exceeds 96 hours (4 days) or longer, the San Antonio Metropolitan Health District will issue a Hot Weather Health Emergency.

The heat index is a calculation based on expected heat discomfort as a result of a combination of dry ambient air temperatures and relative humidity. Please refer to the back cover for the heat index chart. The following table establishes categories for the four heat index ranges. Each category has a particular danger associated with it.

Apparent temperature heat stress index

Category	Heat Index	Dangers
Caution	8090	Fatiguing more than usual
Extreme Caution	91 105	Heat cramps, exhaustion possible
Danger	106 130	Heat exhaustion likely
Extreme Danger	≥130	Heat stroke imminent

LEVEL I

LEVEL I

Based upon the National Weather Service forecasts of temperatures greater than 100 degrees or the heat index is expected to be within the 90-105 degree range for two successive days, the San Antonio Metropolitan Health District notifies the community of a Hot Weather Health Watch.

1. INDIVIDUAL RESPONSE/MEDICAL ADVICE:

- ♦ Your best defense against heat-related injury is prevention.
 - a) Staying cool and increasing your fluid intake.
 - b) Making simple changes in activities and clothing during hot weather can help you to remain safe and healthy.

For Emergencies, Please Call:

911 - EMS paramedics will respond in the event of an emergency.

For Additional Information, Please Call:

Nurse Link -- 358-3000

San Antonio Metropolitan Health District -- 207-8856

2. HEAT PREVENTION SYSTEM ACTIVATED

- a) SAMHD disseminates information (using the form in Appendix A) on heat prevention via the media and other outlets.
- b) Information outreach is available through the San Antonio Metropolitan Health District (207-8856), and coordinated with the Community Action Division, Department of Community Initiatives, and the City of San Antonio for news releases, interviews, and public messages through the City's cable access channel. Flyers, brochures, pamphlets available through SAMHD:

- Extreme Heat: Prevention Guide to Promote Your Personal Health and Safety; Office of Public Affairs, Centers for Disease Control and Prevention.
- <u>Texas Heat Wave: "Neighbors Helping Neighbors."</u>: Texas Department of Health.
- <u>It's Hot!</u> Be <u>Careful!</u>; Christian Senior Services & Meals on Wheels.
- Precautions for Special Populations; San Antonio Metropolitan Health District (Appendix B).
- Heat Stress and Athletic Participation Information; University Interscholastic League (UIL), Athletic Manuals for Coaches and Administrators, 2000 (Appendix C).
- c) SAMHD monitors temperature (F), relative humidity (%), and dew point on a daily basis (excluding weekends), and with this information determines the heat index.
- d) SAMHD notifies participating social service agencies, Bexar County and the City of San Antonio that Level I of the Heat Plan has been activated (Appendix A).
 - 1. Develops a fax network for the distribution of information.
 - Area School Districts notified to take precautions and referred to both the Heat Stress and Athletic Participation Information located in the UIL coaches manuals, and the guidelines for outdoor strenuous activities (on page 15) for outdoor activities, athletic events and extra curricular activities, i.e. band concerts.
 - San Antonio Convention and Visitors Bureau is notified to alert the hotel and motel industry to inform visitors on precautionary measures.
 - 4. Bexar County Medical Society is also notified to send out the alert to local physicians.

3. REPORTING SYSTEMS ACTIVATED

 Emergency rooms and EMS providers keep records of the number of heat related illnesses.

- b) Hospitals begin passive surveillance, reporting heat illnesses to SAMHD. A fax will be sent to hospitals as a reminder to participate in the surveillance of heat related injuries
- c) SAMHD contacts area hospitals, the Bexar County Medical Examiners Office, and EMS for information on heat-related illnesses and or deaths by faxing a request for information.
- d) SAMHD will collect this information from April 15th through October 15th. The record keeping will enable health officials to monitor the community, and gather statistics in the community.

LEVEL II

Level II: When the National Weather Service issues an Excessive Heat Advisory indicating the following criteria: Daytime heat index values of 105 degrees or higher and an actual nighttime ambient temperature of 80 degrees or higher for 48 hours (The 48-hour criterion applies only to the nighttime temperatures.), the San Antonio Metropolitan Health District will issue a Hot Weather Health Warning.

- 1. ALL ACTIONS IN LEVEL I CONTINUE
- 2. ADDITIONAL INFORMATION IS DISTRIBUTED
- 3. HELPLINE PHONE NUMBERS ACTIVATED
 - Provide information to the public about what they should do, some general information on avoiding heat-related illnesses, and where to go for air-conditioned relief.

24 Hour Help-Line Phone Numbers

Nurse Link	358-3000
United Way HELP Line	227-4357
Non-Emergency Information	311

Community Resource Phone Numbers

Methodist Healthcare System—call a nurse for children	226-8773 (22NURSE)
City Public Service (CPS),Customer Service Line	353-4357
Bexar County, Dept. of Housing & Human Services, Customer Service Line	335-6770
Bexar Metropolitan Water District—water issues, Customer Service Line	922-1221
San Antonio Water System (SAWS)—water issues, Customer Service Line	704-SAWS (7297)
City of San Antonio: Community Initiatives; Community Action Division	207-7830
Salvation Army	352-2020
American Red Cross	224-5151
Catholic Charities	433-3256
Helping Hands MWF 9-2 p.m.	922-4280
Society of St. Vincent de Paul	225-7837
San Antonio Metropolitan Health District (SAMHD), Food and Environmental Services	207-8856
Transportation for "at risk" individuals to shelters or daytime (locations –Alamo Area Council of Governments	362-5200

4. IDENTIFICATION OF ISOLATED "AT RISK" INDIVIDUALS:

Groups and individuals like those listed below can help identify individuals at risk and connect them to transportation and air conditioning. Remember that some individuals who could be "at risk" do not have a telephone to call for help.

- Local city and county law enforcement (especially community policing officers)
- 2. Local Fire Departments, Emergency Medical Services (EMS), VFDs
- 3. Meals on Wheels and other non-profit organizations
- 4. Senior Citizen Nutrition and Community Centers
- 5. Emergency Care Centers, Hospital Social Workers; Home Health Nursing
- 6. Public Health Case Managers/Outreach Workers/Case Workers
- 7. Churches & Synagogues
- 8. Friends and Family
- 9. Postmen, Meter Readers, Animal Control Officers, Utility Companies
- 10. Neighborhood Associations, Neighborhood Crime Watch Volunteers
- 11. Children & Adult Protective Services

5. UTILITY ASSISTANCE PROGRAMS:

- Electricity: Individuals with problems concerning payment can develop a payment plan, if necessary. Agencies that will assist with temporary utility bill assistance include:
 - CPS provides plans that will help accommodate the consumer during financial difficulties. City Public Service (CPS)--electricity service 353-4357
- 2. City of San Antonio Department of Community Initiatives.
 - Provides emergency utility assistance (electric, gas, water, etc).
 Community Action Division 207-7830
- 3. Bexar County Department of Housing and Human Services
 - Offers limited utility assistance with electric, natural gas, butane, and propane @ 335-6770.
- 4. San Antonio Water System
 - SAWS provide plans that will help accommodate the consumer during financial difficulties @ 704-SAWS (7297).

NOTE: Window air conditioners are now more efficient. Many people who have central air-conditioning also install a new quiet window unit in a bedroom or two. This allows them to set the central thermostat higher at night (because there is no need to keep the entire house extremely cool) and realize significant utility bills savings (Express News, August 1, 1998).

5. DONATIONS OF MATERIAL

The following agencies will accept donations such as; air-conditioned space, transportation, cooling packs, fans, air conditioners, and appropriately distribute them. In addition, donations of bottled water would be welcome. Please contact the agency for locations and business hours.

Christian Senior Services	735-5115
Meals on Wheels	735-5115
Salvation Army	352-2020
United Way Help Line	227-4357
San Antonio Food Bank, Inc. (bottled water & food related	337-3663
items)	
Habitat for Humanity of San Antonio	223-3649
Church Pantries: Greater San Antonio Community of	733-9159
Churches (cash donations)	

LEVEL III

LEVEL III

When the National Weather Service issues an Excessive Heat Advisory that exceeds 96 hours (4 days) or longer, the San Antonio Metropolitan Health District will issue a Hot Weather Health Emergency.

ALL ACTIONS IN LEVEL I AND LEVEL II CONTINUE

SHELTERS

- Overnight Locations:
 - Salvation Army -- 352-2020 (24 hour shelter for homeless or near homeless.)
 - 2. SAMM Shelter -- 224-5838
 - 3. United Way Help Line -- 227-4357
- Daytime Locations:
 - 1. Salvation Army -- 352-2020 (24 hour shelter for homeless or near homeless).
 - 2. Local Malls and Shopping Centers
 - 3. Movie Theaters
 - 4. Public libraries and community centers provide air conditioned rooms which are open to the public during posted hours.
 - 5. Senior Citizen Nutrition Sites -- 207-7172
 - 6. Learning and Leadership Development Centers—207-7227
 - 7. Other Public Facilities: gyms, swimming pools, and tourist facilities

DEACTIVATION

DEACTIVATION OF LEVELS

be deactivated.

The San Antonio Metropolitan Health District will deactivate each level by formal memo via fax or E-mail sent to the Directors of the Emergency Management Offices for the City of San Antonio and Bexar County, and the media outlets (television and newspaper only).

In each of our activation notices a disclaimer has been included that states "Readers are encouraged to contact the National Weather Service for specific weather conditions at 830-606-3617 or visit their website at http://www.srh.noaa.gov" and type in San Antonio, TX in Local Forecast Search. During the hot summer days, *Hot Weather Health Advisory (Level I) will not*

COORDINATION WITH EXISTING EMERGENCY MANAGEMENT PLANS

The heat plans will supplement the existing emergency management plans for the City of San Antonio and Bexar County, and will be coordinated with the Texas Department of Health's regional office.

Additional Considerations

During various discussion groups and numerous health complaints, it was determined that an additional component for the Heat Plan is needed for outdoor activities conducted by the school districts in the area.

When the heat index is 80°F the heat stress category is at a level of caution. To obtain a heat index of 80°F, the temperature is at 80°F with 40% relative humidity. In San Antonio and the surrounding communities, these conditions are met frequently, especially during the spring and summer months.

Even short periods of high temperatures can cause serious health problems. Outdoor activities, whether it is assembling outside during recess or for organized sports activity such as football practice or band practice, can cause heat related illnesses.

These guidelines (on the following page) are not a substitute for medical care but may help school districts and their staffs prevent, recognize, and respond promptly to warning signs of trouble. The best defense against heat-related illness is prevention. Staying cool and making simple changes in fluid intake, activities, and clothing during hot weather can help faculty and students to remain safe and healthy.

Education is an essential component for prevention of heat related illnesses. All school districts should implement a strong education campaign for students and faculty. The train the trainer approach is a resourceful tool to initiate such a program. We encourage each school district to implement these guidelines into a functioning heat plan that can be applied to all school activities.

Guidelines for Outdoor School Activities

The following definitions will apply throughout the remainder of the document.

1. Outdoor Strenuous Activities: an action that requires great effort or energy—a vigorous activity. These activities include but are not limited to the following:

Organized sports practice or events:

- Football

Tennis

- ♦ Pep Squad
 ♦ Sports Day
- Baseball
- Track & Field
- ♦ Soccer
- Gymnastics

Water Polo

- ♦ Physical Education
 ♦ Recess
 ♦ Volleyball Class
- Softball

- ♦ Swimming
 ♦ Basketball
 - ♦ Golf
- ♦ Wrestling
 ♦ Drill Team
 ♦ Marching Band
 ♦ Cheerleading
- ◆ Cross Country
 ◆ Field Trip
- 2. Other Outdoor Activities: any outdoor activity that does not require strenuous action on part of the participants.

Guidelines: Outdoor Strenuous Activities

- 1. Evaluate weather for the present conditions or contact the National Weather Forecast for daily predictions in the forecast.
 - http://www.srh.noaa.gov
 - National Weather Service 830-606-3617 (toll free call from San Antonio)
 - Based on the heat index and stress category, determine the level of activity allowed and the specific precautionary measures to be taken.

Category	Heat Index	Dangers
Caution	8090	Fatiguing more than usual
Extreme Caution	91 105	Heat cramps, exhaustion possible
Danger	106 130	Heat exhaustion likely
Extreme Danger	≥130	Heat stroke imminent

- Under the heat stress category of extreme danger, take all precautionary measures to prevent heat illness or cease all outdoor activities.
- 2. Provide an ample supply of drinking water for the duration of the event.
- 3. Ensure that participants are drinking plenty of fluids.
 - Regardless of activity level, increase fluid intake.
 - During heavy exercise in a hot environment, drink 24 glasses (16-32 ounces) of cool fluids each hour.
 - During hot weather, drink more liquid than thirst indicates.
 - Avoid very cold beverages because they may cause stomach cramps.
 - Avoid consuming alcoholic beverages, flavored drinks, or beverages containing caffeine, they actually cause one to lose more fluid.
- 4. Provide fluids capable of replacing salt and minerals.
 - ➤ Heavy sweating removes salt and minerals from the body. These are necessary for the body to function properly and must be replaced. The easiest and safest way to replace salt and minerals is through diet. Drink fruit juice or sports beverage during exercise or any work in the heat.
- 5. Institute a weigh in program for all athletes. % weight lost prior to training should be regained.
- 6. Wear Appropriate Clothing and Sunscreen.
- 7. Pace Athletes and Faculty Members.
- 8. Acclimatize! Introduce the staff and students slowly into workouts and recess activities, picking up the pace gradually over days.

- 9. Schedule Outdoor Activities Carefully.
 - ➤ Recess for elementary students should be scheduled before 12:00 p.m.
- 10. Establish a Buddy System.
 - Students monitor each other.
 - Education is the essential component.
- 11. Be aware that any sudden change in temperature, such as an early summer heat wave, will be stressful to the body. One has greater tolerance for the heat if physical activity is limited, until accustomed to the heat.
- 12. Use Common Sense!

Guidelines: Other Outdoor Activities

- Evaluate weather for the present conditions or contact the National Weather Forecast for daily predictions in the forecast.
 - http://www.srh.noaa.gov
 - ➤ National Weather Service 830-606-3617 (toll free call from San Antonio)
 - Under the heat stress category of extreme danger, take all precautionary measures to prevent heat illness or cease all outdoor activities.
- 2. Provide an ample supply of drinking water for the duration of the event.
- 3. Ensure that participants are drinking plenty of fluids.
 - Regardless of activity level, increase fluid intake.
 - ➤ During heavy exercise in a hot environment, drink 24 glasses (16-32 ounces) of cool fluids each hour. Be aware of water intoxication can occur if excessive fluids are consumed.
 - During hot weather, drink more liquid than thirst indicates.

- Avoid very cold beverages because they can cause stomach cramps.
- Avoid consuming alcoholic beverages, flavored drinks, or beverages containing caffeine, they actually cause one to lose more fluid.
- 4. When necessary provide fluids capable of replacing salt and minerals.
 - ➤ Heavy sweating removes salt and minerals from the body. These are necessary for the body to function properly and must be replaced. The easiest and safest way to replace salt and minerals is through diet. Drink fruit juice or sports beverage during exercise or any work in the heat.
 - Under prolonged conditions.
 - > Extreme heat conditions (>103°F)
- 5. Wear Appropriate Clothing and Sunscreen.
 - > This includes band members whenever possible.
- 6. Pace athletes and faculty members.
- 7. Schedule Outdoor Activities Carefully.
- 8. Establish a Buddy System.
 - > Students monitor each other.
 - Education is the essential component.
- Acclimatize! Be aware that any sudden change in temperature, such as an early summer heat wave, will be stressful to the body. One has greater tolerance for the heat if physical activity is limited, until accustomed to the heat. One week is the minimum.
- 10. Playground equipment should be monitored to avoid burns.

APPENDIX A

For Immediate Release April 29, 2003

Contact Heat Plan Representative: 207-8853

News Release: Hot Weather Health Watch - Level I

Level I: Based upon the National Weather Service forecasts of temperatures greater than 100 degrees or a heat index within the 90-105 degree range for two successive days, the San Antonio Metropolitan Health District notifies the community of a Hot Weather Health Watch.

During the summer months, excessive heat temperatures are a fact of life here in South Texas. Excessive heat conditions can result in direct and adverse health consequences, particularly to the very young and to the elderly. The following precautions should be followed during this time to reduce heat related injuries.

- Drink non-alcoholic and caffeine-free liquids, such as water and juices.
- Be aware of those at high risk, such as the elderly, infants and children up to 4 year
 of age, someone who is overweight or someone on medication. Rest frequently in a
 shady area.
- Do not leave infants, children or pets unattended in a parked car (even if the windows are down or the air conditioning is on) or other hot environment.
- Ask your physician whether you are at particular risk because of medication.
- Remember to leave fresh water in the bowl for pets kept outdoors and provide as much shade as possible where the pets are kept.

A deactivation notice is only sent to the Emergency Management Offices and to the media (television and newspaper only). The San Antonio Metropolitan Health District encourages readers to contact the National Weather Service for the most current weather conditions at 830-606-3617, or visit their website for current hourly weather http://www.srhnoaa.gov. During the hot summer days, Hot Weather Health Watch (Level I) will not be deactivated.

For Further Assistance:

If you have an emergency call

For Utility Assistance call CPS:

For Fan Assistance call the United Way HelpLine:

For non-emergency information Call

San Antonio Metropolitan Health District:

911
353-4357
227-4357
311
207-8856

APPENDIX A

For Immediate Release April 17, 2003

Contact Heat Representative: 207-8853

News Release: Hot Weather Health Warning - Level II

Level II: When the NWS has issued an Excessive Heat Advisory and the following criteria are met: Daytime heat index values of 105 degrees or higher and an actual nighttime ambient temperature of 80 degrees or higher for 48 hours (the 48-hour criterion applies only to the nighttime temperatures), the San Antonio Metropolitan Health District will issue a Hot Weather Health Warning.

During the summer months, excessive heat temperatures are a fact of life here in South Texas. Excessive heat conditions can result in direct and adverse health consequences, particularly to the very young and to the elderly. The following precautions should be followed during this time to reduce heat related injuries.

- Drink non-alcoholic and caffeine-free liquids, such as water and juices.
- Be aware of those at high risk, such as the elderly, infants and children up to 4 year
 of age, someone who is overweight or someone on medication. Rest frequently in a
 shady area.
- Do not leave infants, children or pets unattended in a parked car (even if the windows are down or the air conditioning is on) or other hot environment.
- Ask your physician whether you are at particular risk because of medication.
- Remember to leave fresh water in the bowl for pets kept outdoors and provide as much shade as possible where the pets are kept.

A deactivation notice is only sent to the Emergency Management Offices and to the media (television and newspaper only). The San Antonio Metropolitan Health District encourages readers to contact the National Weather Service for the most current weather conditions at 830-606-3617, or visit their website for current hourly weather http://www.srhnoaa.gov During the hot summer days, Hot Weather Health Watch (Level I) will not be deactivated.

For Further Assistance:

If you have an emergency call	911
For Utility Assistance call CPS:	353-4357
For Fan Assistance call the United Way Help-Line:	227-4357
For non-emergency information Call	311
San Antonio Metropolitan Health District:	207-8856

Appendix B

Precautions for Special Populations

(sample)

(Date)

The heat during the summer of 1998 was unrelenting. During this heat wave Texas had 124 people die, three of these were from Bexar County (Associated Press). The San Antonio Metropolitan Health District (SAMHD) had issued numerous heat advisories and will continue to closely monitor future environmental conditions, along with the Texas Department of Health, local emergency management agencies, and local government. In addition, a comprehensive Community-Based Heat Relief Plan was developed. The Heat Plan is an important part of prevention, and aims to reduce the impact of heat-related illnesses and deaths in the community. The SAMHD is urging local hospitals to pay special attention to those populations who have a higher risk for heat-related illnesses and deaths.

Special Populations

Infants and children up to four years of age are sensitive to the effects of high temperatures and rely on other to regulate their environments and provide adequate liquids to prevent dehydration. All hospitals are strongly urged to survey and consider home environmental conditions as part of newborn discharge planning. Several readmissions of newborns have occurred recently, which could have been avoided if home environments had been considered before initial discharge.

Other populations at risk include the elderly, the chronically ill, and individuals taking a variety of medications that warrant special consideration. Discharge planning regarding the effects of heat in their home environment should be included for these individuals as well.

Your urgent action is requested in this matter and we appreciate your continued attention to the community wide health problem. Please contact our environmental health service at 207-8856 if further information is needed.

Appendix C

Heat Stress and Athletic Participation Information, University Interscholastic League (UIL), Taken from the Athletic Manuals for Coaches and Administrators, 2000.

This information is located in the following UIL athletic manuals: Baseball, Basketball, Softball, Tennis, Volleyball, Wrestling Manual & Spring Meet Manual (Golf, Tennis, Track and Field).

HOT WEATHER HINTS. During hot and humid weather, the athlete is subject to:

Heat Cramps - painful cramps and spasms of active muscles -commonly of the calf muscle-caused by intense, prolonged exercise in the heat and depletion of water and electrolytes due to sweating.

Heat Fatigue - feeling of weakness and tiredness caused by the depletion of water and electrolytes due to sweating and exercise in the heat.

Heat Exhaustion - caused by inadequate replacement of either body fluids or electrolytes due to prolonged sweating. Heat exhaustion results fromwater depletion related to inadequate fluid intake over several days. **Symptoms** are lack of coordination, restlessness, dehydration, and a prickling or burning sensation. Heat exhaustion from **electrolyte depletion** occurs in the unacclimatized athlete exercising in severe heat. **Symptoms** include weakness, headache, vomiting, nausea, loss of appetite, dizziness, diarrhea, fainting, pale skin color, loss of coordination, and dilated pupils.

Heat Stroke - an acute medical emergency caused by overheating from a breakdown of the thermoregulatory mechanism in the brain. Heat stroke is associated with high rectal temperature, lack of sweating, disorientation, seizures, and possible unconsciousness or coma. It may also occur suddenly without being preceded by any other clinical signs. **Symptoms** are unconsciousness, hot/dry skin, strong/rapid pulse, low blood pressure, constricted pupils, and rising rectal temperature. Initial symptoms may include dizziness, headache, weakness, loss of coordination, and nausea. It is felt that the above heat stress problems can be controlled, provided certain precautions are taken. The following practices and precautions are recommended:

- Each athlete must have a physical examination with a medical history when first entering high school and an annual health history update. History of previous heat illness and type of training activities should be included before organized practice begins.
- 2. Lack of physical fitness impairs the performance of an athlete who participates in high temperatures. Coaches should know the physical condition of their athletes and set practice schedules accordingly.

- 3. Acclimatization is the process of becoming adjusted to heat, and since most heat stress problems occur during the first few days of training, it is essential for gradual acclimatization to hot weather activities. It is necessary for an athlete to exercise in the heat and to replace water and electrolytes if he/she is to become acclimatized to hot weather. Partial acclimatization can take place in seven to ten days. Final stages of acclimatization to heat are marked by increased sweating and reduced electrolyte concentration in the perspiration. Younger athletes take longer periods of time for acclimatization than adults. This is one of the last body systems to develop.
- 4. Water should be readily available to the athletes at all times. Cold water should be provided because it is absorbed faster by the body. It is recommended that a minimum ten minute water break be scheduled for every half hour of heavy exercise in the heat. Athletes should rest in a shaded area and remove contact equipment during the break. Check and be sure the athletes are drinking water. Attention must be directed to replacing water.
- 5. Know and record the temperature and humidity. The greater the humidity, the more difficult it is for the body to cool itself. When the dry bulb temperature is above 90 degrees F. and the wet bulb temperature is above 72 degrees F., then the following heat illness precautions should be implemented:
 - Increase the number and the length of water breaks.
 - Reduce practice time.
 - Remove appropriate clothing and/or contact equipment.
 - Alter conditioning methods.
 - Encourage fluid replacement between practice sessions.
- 6. Cooling by evaporation is proportional to the area of skin exposed. In extremely hot and humid weather, reduce the amount of clothing covering the body as much as possible. Helmet removal is an effective means of cooling because 90% of the body's heat is dissipated from the head. Never use rubberized clothing. Cotton is the best choice. Light colored and loose fitting jerseys are recommended.
- 7. Athletes should weigh each day before and after practice and coaches should check the weight charts. Generally a three percent weight loss through sweating is considered safe and over a three percent weight loss is in the danger zone. The athlete should not be allowed to practice in hot and humid conditions if her/she experiences over a three percent weight loss.

- 8. Watch athletes carefully for signs of trouble, particularly athletes who lose too much weight, overweight athletes, athletes that are ill or recovering from illness, athletes on medications, athletes with asthma, athletes with poor nutrition, athletes that do not drink adequate amounts of water (8 glasses), and the eager athlete who constantly competes at top capacity. Some trouble signs are nausea, incoherence, fatigue, weakness, vomiting, cramps, weak rapid pulse, and dizziness.
- 9. Teams that encounter hot weather during the season, through travel or following an unseasonable cool period, should be physically fit. Coaches in this situation should encourage the athletes to **drink water**, even when they are not thirsty, at every opportunity possible, including time-outs. Coaches should follow the above recommendations and substitute more frequently during games.

Know what to do in case of **emergency**. Be familiar with immediate first aid practices and prearranged procedures for obtaining medical care, including ambulance service.

- **Heat Cramps -** Replace fluids, stretch affected muscle, and rest.
- Heat Fatigue Remove protective equipment or appropriate clothing, replace fluids, cool body temperature, and restrict activity.
- Heat Exhaustion Treat for possible shock, remove protective equipment or appropriate clothing, replace fluids, cool body, and arrange for medical evaluation.
- Heat Stroke This is a medical emergency. DELAY COULD BE FATAL.
 Remove the athlete to cool environment, remove protective equipment or
 appropriate clothing, provide water if athlete is conscious, monitor vital
 signs (breathing, pulse, blood pressure), and activate Emergency
 Medical System.

Go to beginning of manual.

Link to UIL Athletic Manuals for Coaches and Administrators: www.uil.utexas.edu go to athletics > all UIL sports > athletic manuals for all activities. UIL Telephone (512) 471-5883

Appendix C

Heat Stress and Athletic Participation Information, University Interscholastic League (UIL), Taken from the Athletic Manuals for Coaches and Administrators, 2000.

This information is located in the following UIL athletic manuals: Cross Country, Football, and Soccer.

HEAT STRESS AND ATHLETIC PARTICIPATION. Early fall football, cross country, soccer and field hockey practices are conducted in very hot and humid weather in many parts of the United States. Due to the equipment and uniform needed in football, most of the heat problems have been associated with football. During the 1998 season there were four heat stroke deaths in football. There are no excuses for heatstroke deaths if the proper precautions are taken. During hot weather, the athlete is subject to the following:

Heat Cramps - Painful cramps involving abdominal muscles and extremities caused by intense, prolonged exercise in the heat and depletion of salt and water due to sweating.

Heat Syncope - Weakness, fatigue and fainting due to loss of salt and water in sweat and exercise in the heat. Predisposes to heatstroke.

Heat Exhaustion (Water Depletion) - Excessive weight loss, reduced sweating, elevated skin and core body temperature, excessive thirst, weakness, headache and sometimes unconsciousness.

Heat Exhaustion (Salt Depletion) - Exhaustion, nausea, vomiting, muscle cramps, and dizziness due to profuse sweating and inadequate replacement of body salts.

Heatstroke - An acute medical emergency related to thermo-regulatory failure. Associated with nausea, seizures, disorientation, and possible unconsciousness or coma. It may occur suddenly without being preceded by any other clinical signs. The individual is usually unconscious with a high body temperature and a hot dry skin (heatstroke victims, contrary to popular belief, may sweat profusely). It is believed that the above mentioned heat stress problems can be controlled provided certain precautions are taken. According to the American Academy of Pediatrics Committee on Sports Medicine, heat related illnesses are all preventable. (Sports Medicine: Health Care for Young Athletes, American Academy of Pediatrics, 1991). The following practices and precautions are recommended:

1. Each athlete must have a physical exam with a medical history when first entering a program and an annual health history update. History of previous heat illness and type of training activities before organized practice begins should be included. State high school association's recommendations should be followed.

- It is clear that top physical performance can only be achieved by an athlete who Is in top physical condition. Lack of physical fitness impairs the performance of an athlete who participates in high temperatures. Coaches should know the **physical condition** of their athletes and set practice schedules accordingly.
- 3. Along with physical conditioning, the factor of acclimatization to heat is important. Acclimatization is the process of becoming adjusted to heat and it is essential to provide for gradual acclimatization to hot weather. It is necessary for an athlete to exercise in the heat if he/she is to become acclimatized to it. It is suggested that a graduated physical conditioning program be used and that 80 percent acclimatization can be expected to occur after the first seven to ten days. Final stages of acclimatization to heat are marked by increased sweating and reduced salt concentration in the sweat.
- 4. The old idea that water should be withheld from athletes during workouts has no scientific foundation. The most important safeguard to the health of the athlete is the replacement of water. Water must be on the field and readily available to the athletes at all times. It is recommended that a minimum of ten minutes be scheduled for a water break every half hour of heavy exercise in the heat. Water should be available in unlimited quantities. Check and be sure athletes are drinking the water. Cold water is preferable. Drinking ample water before practice or games has also been found to aid performance in the heat.
- Salt should be replaced daily. Modest salting of foods after practice or games will
 accomplish this purpose. Salt tablets are not recommended. Attention must be
 directed to replacing water -- fluid replacement is essential.
- 6. Know both the temperature and humidity. The greater the humidity, the more difficult it is for the body to cool itself. Test the air prior to practice or game using a wet bulb, globe, temperature index (WBGT Index) which is based on the combined effects of air temperature, relative humidity, radiant heat and air movement. The following precautions are recommended when using the WBGT Index (ACSM's Guidelines for the Team Physician, 1991):

Below 64	Unlimited activity
65-72	Moderate risk
74-82	High risk
82 plus	Very high risk

There is also a weather guide for activities that last 30 minutes or more (Fox and Mathews, 1981) which involves knowing the relative humidity and air temperature:

Air Temp	Danger Zone	Critical Zone
70 F	80 percent RH	100 percent RH
75 F	70 percent RH	100 percent RH
80 F	50 percent RH	80 percent RH
85 F	40 percent RH	68 percent RH
90 F	30 percent RH	55 percent RH
95 F	20 percent RH	40 percent RH
100 F	10 percent RH	30 percent RH
R	H = Relative Humidity	

One other method of measuring the relative humidity is the use of a sling psychrometer, which measures wet bulb temperature. The wet bulb temperature should be measured prior to practice and the intesity and duration of practice adjusted accordingly. Recommendations are as follows:

Under 60 F	Safe but always observe athletes
61-65 F	Observe players carefully

66-70 F Caution

71-75 F Shorter practice sessions and more frequent water and rest breaks

75 plus Danger level and extreme caution

- 10. Cooling by evaporation is proportional to the area of skin exposed. In extremely hot and humid weather reduce the amount of clothing covering the body as much as possible. Never use rubberized clothing.
- 11. Athletes should weigh each day before and after practice and weight charts checked. Generally a three percent weight loss through sweating is considered safe and over a three percent weight loss is in the danger zone. Over a three percent weight loss the athlete should not be allowed to practice in hot and humid conditions. Observe the athletes closely under all conditions. Do not allow athletes to practice until they have adequately replaced their weight.
- 12. Observe athletes carefully for signs of trouble, particularly athletes who lose significant weight, and the eager athlete who constantly competes at his/her capacity. Some trouble signs are nausea, incoherence, fatigue, weakness, vomiting, cramps, weak rapid pulse, visual disturbance, and unsteadiness.
- 13. Teams that encounter hot weather during the season through travel or following an unseasonable cool period should be physically fit but will not be environmentally fit. Coaches in this situation should follow the above recommendations and substitute more frequently during games.

- 14. Know what to do in case of emergency and have your emergency plans written with copies to all your staff. Be familiar with immediate first aid practices and prearranged procedures for obtaining medical care, including ambulance service.
 - Heat Stroke This is a medical emergency. DELAY COULD BE FATAL.

Immediately cool body while waiting for transfer to a hospital. Remove clothing and place ice bags on the neck, in the axilla (armpit), and on the groin area. An increasing number of medical personnel are now using a treatment for heat illness that involves applying either alcohol or cool water to the victim's skin and vigorously fanning the body. The fanning causes evaporation and cooling. (Source--The First Aider--September 1987)

- Heat Exhaustion OBTAIN MEDICAL CARE AT ONCE.
 Cool body as you would for heat stroke while waiting for transfer to hospital. Give fluids if athlete is able to swallow and is conscious.
- Summary The main problem associated with exercising in the hot weather is water loss through sweating. Water loss is best replaced by allowing the athlete unrestricted access to water. Water breaks two or three times per hour are better than one break an hour. Probably the best method is to have water available at all times and to allow the athlete to drink water whenever he/she needs it. Never restrict the amount of water an athlete drinks, and be sure the athletes are drinking the water. The small amount of salt lost in sweat is adequately replaced by salting food at meals. Talk to your medical personnel concerning emergency treatment plans.

Link to UIL Athletic Manuals for Coaches and Administrators: www.uil.utexas.edu go to athletics > all UIL sports > athletic manuals for all activities. UIL Telephone (512) 471-5883

Appendix D

Heat Injury Precautions Taken for Special Events

The occurrence of heat-induced illnesses is the highest in Bexar County, Texas from late April through September when the daily high temperature generally ranges between 90 to 100 degrees Fahrenheit. During this time of year, we can experience hot, high humid conditions on one day, followed by a brisk northern wind the following day and then have temperatures climb into the nineties on the next day. Temperatures change very rapidly. Fiesta Week is a time when many of our citizen will spend a large amount of their time in the outdoors, watching parades and attending many special event venues like Night in Old San Antonio, King William Festival, St. Mary's Oyster Bake, etc.

In combination with humidity, these temperatures can result in a heat index value that can produce heat injury, especially to individuals engaging in outdoor activities, i.e. running, jumping, marching, and other vigorous activities. Persons who are not acclimatized to working in hot environments and who are exposed to combinations of environmental and metabolic heat above an identified tolerance level substantially increase their risk of incurring acute adverse health affects. The classes of heat injury include Heat Cramps, Heat Exhaustion, and Heat Stroke. All injuries will require medical follow-up treatment.

The following is a list of precautions and prevention measures that can be taken by schools and private organizations when planning and attending special events.

- Strenuous physical activities should not be conducted when the heat index reads 105°F or above. Please contact the National Weather Service for current weather conditions at 830-606-3617 or www.srh.noaa.gov
- All summer events ideally, should be scheduled for early morning or late evening.
- Activity sponsors should provide fluids (water) throughout the duration of the event.
- Participants should be encourage to drink eight ounces of fluid ten to 15
 minutes before the activity and fluid ingestion at frequent intervals should be
 permitted during the activity.
- Participants should be instructed on the recognition of early signs and symptoms of developing heat illness.
- 6. Provisions should be made for the care of heat-induced illnesses.
- Wear clothing that is lightweight, loose fitting, and light-colored, hats and sunscreen.
- 8. If possible mist stations should be provided to cool down the participants.



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HOT WEATHER COULD KILL YOUR PET

As summer temperatures quickly rise, so do the chances of our pets o verheating. The Humane Society/SPCA of Bexar County wants to remind everyone to please take precautions with our furry friends during our hot summer months. The following bps could be a matter of life and death for a pet

1. NEVER LEAVE A PET INSIDE A CAR.

A car can become a death trap even an a mild sunny day because temperatures can quickly pass the 120 degree mark. Many animals have lost their lives due to owners leaving them in a car. It only takes a few minutes for a pet to become overheated. A dog or cat does not perspire as humans do. Their lungs are their main cooling system so with nothing but overheated air to breath, they cannot live very long. Should a pet manage to survive the heat its health could be damaged, including permanent brain damage. Cracking the windows is not enough!

2. IF A PET MUST STAY OUTDOORS, PROVIDE SHADE AND WATER.

Although its ideal to bring pets indoors ff the temperature is above 90 degrees and there is high humidity, proper shade and plenty of fresh water must be available at all times for the pet. It is important to remember to place the water bowl in the shade so the water does not become hot and make sure the bowl cannot be easily Upped over. Feeding schedules should remain the same. Even in the shade, temperatures can reach the high 90's so if possible, bldg the pets into the home for an occasional relief from the heat. Hot days are particularly difficult on older, sick, or overweight animals.

3. EXERCISING WITH A DOG:

It is best to avoid excessive exercise on hot days, but ff you do take a walk or jog Mth your pet make sure to give ft plenty of water at least 30 minutes before exercising.

SIGNS OF HEATSTROKE:

Panbng, staring, anxious expression, refusal to obey commands, warm, dry skin, high fever, rapid heartbeat, vomiting, collapse.

WHAT TO DO IF AN ANIMAL HAS A HEATSTROKE:

If an animal becomes overcome by heat exhauston, you can give immediate first aid by cooling him with cold water and ice or by applying towels soaked in cool water to the hairie @s areas of the body. Often the pet will respond after a few minutes of cooling, only to falter again with his temperature soaring back up or falling well below what again with his temperature soaring back up or falling well below what is normal. It is crucial to get the pet to a veterinarian as soon as possible where further treatment can be applied. Even with treatment, heatstroke can be fatal so the best cure is prevention. Summer does not have to fraught with peril - with ample precaution, both pet owners and their furry companions can enjoy those long, hot dog days of summer!

httprl/www.humanesocietyspca.org/pet,._tips/hotweathertips.html

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